Appl. No. 10/502,049 Docket No. STAH3008/REF

This listing of claims will replace all prior versions and listings of claims in the application.

## Listing of Claims:

1-31. (Canceled)

32. (Currently Amended) A method for treating an infection in a patient, comprising <u>orally</u> administering to a patient in need thereof a therapeutically effective amount of sialyzed carbohydrates of formula I:

wherein

Sia means a sialic acid or an O-acetyl sialic acid derivative in an  $\alpha$  2-3 bond,

Gal means a galactose-monosaccharide unit,

HexNac means an N-acetylated galactosamine-monosaccharide unit or glucosamine-monosaccharide unit (GalNAc or GlcNAc).

Hex means a galactose-monosaccharide unit or glucose-monosaccharide unit (Gal or Glc).

C represents HexNac or Hex or is absent,

n represents 1 to 50.

wherein X is a first sialic acid or an O-acetyl sialic acid derivative thereof, optionally having a second sialic acid or an O-acetyl sialic acid derivative bound to the first sialic acid or O-acetyl sialic acid derivative in an α 2-3 bond, a phosphate group, a sulphate group, carboxyl group, or a monosaccharide having a phosphate group, sulphate group or carboxyl group.

wherein only one of the residues X is present,

V is a) OH when n represents 1, b) a carbohydrate residue or c) a connecting point on a carrier T, with the proviso that when V represents b) a carbohydrate residue being a monosaccharide residue, an oligosaccharide residue or a polysaccharide residue or c) a carrier T, n means the number of the carbohydrate units of formula II that are each directly bound to this b) carbohydrate residue or c) carrier, and formula II is as follows:

wherein X is a first sialic acid or an O-acetyl sialic acid derivative thereof, optionally having a second sialic acid or an O-acetyl sialic acid derivative bound to the first sialic acid or O-acetyl sialic acid derivative in an a 2-3-bond, a phosphate group, a sulphate group, carboxyl group, or a monosaccharide having a phosphate group, sulphate group or carboxyl group,

wherein only one of the residues X is present.

wherein n is 1 to 50, and

wherein the sialyzed carbohydrate are in a form so that sia  $\alpha$  2-3 residues of said sialyzed carbohydrates bind to pathogens.

- 33. (Currently Amended) The method according to claim 32, wherein one of the following criteria i) through [fiii)]] ii) are met:
  - Sia represents acetyl neuraminic acid (NeuAc) or N-glycolyl neuraminic acid (NeuGc), and
  - ii) the carrier T is selected from the group consisting of a peptide, a protein, a polymer, and a biopolymer, and
  - iii) the carbohydrate residue constituting residue V is a monosaccharide residue, an eligosaccharide residue or a polysaccharide residue.

- 34. (Previously Presented) The method according to claim 32, wherein the carbohydrates of formula I are selected from the group consisting of disialyl-lacto-N-tetraose (DS-LNT), disialyl-lacto-N-neo-tetraose (DS-LNT), glycomacropeptide (GMP), ganglioside  $G_{D1a}$ , ganglioside  $G_{T1b}$  and ganglioside  $G_{T1b}$ .
- 35. (Previously Presented) The method according to claim 32, wherein T is a glycolipid or ganglioside.
- 36. (Previously Presented) The method according to claim 32, wherein the carbohydrate or carbohydrates of formula I are administered in an amount of 1 mg per kg of body weight of said patient.
- 37. (Previously Presented) The method according to claim 32, wherein the patient has an infection of the gastrointestinal tract, blood system, respiratory passage, urogenital tract, or nasopharynx.
- 38. (Previously Presented) The method according to claim 32, wherein the sialyzed carbohydrates are administered in the form of a fluid, pharmaceutical, dietetic, or food composition that is not human milk.

## 39-40. (Cancelled)

- 41. (Previously Presented) The method of claim 32, wherein the patient has an infection of the gastrointestinal tract and the patient is human.
- 42. (Currently Amended) A pharmacetical <u>pharmaceutical</u>, <u>a</u> food or <u>a</u> dietitic composition <u>composition in a form for oral administration</u> comprising a sialyzed carbohydrate of formula I:

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wherein Sia means a sialic acid or an O-acetyl sialic acid derivative in an α2-3 bond.

Gal means a galactose-monosaccharide unit,

HexNac means an N-acetylated galactosamine-monosaccharide unit or glucosamine-monosaccharide unit (GalNAc or GlcNAc),

Hex means a galactose-monosaccharide unit or glucose-monosaccharide unit (Gal or Glc).

C represents HexNac or Hex or is absent,

n represents 1 to 50.

wherein X is a first sialic acid or an O-acetyl sialic acid derivative thereof, optionally having a second sialic acid or an O-acetyl sialic acid derivative bound to the first sialic acid or O-acetyl sialic acid derivative in an α 2-3 bond, a phosphate group, a sulphate group, carboxyl group, or a monosaccharide having a phosphate group, sulphate group or carboxyl group,

wherein only one of the residues X is present,

V represents a) OH, b) a carbohydrate residue or c) a connecting point on a carrier T, with the proviso that, if V represents a) OH, n represents 1, and, if V represents a b) carbohydrate residue or a carrier T, n means the number of the carbohydrate units that are each directly bound to this b) carbohydrate residue being a monosaccharide residue, an oligosaccharide residue or a polysaccharide residue or c) carrier and wherein formula I has at least one carbohydrate unit of formula II:

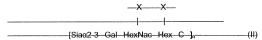
wherein X is a first sialic acid or an O acetyl sialic acid derivative thereof, optionally having a second sialic acid or an O acetyl sialic acid derivative bound to the first sialic acid or O acetyl sialic acid derivative in an α 2-3 bond, a phosphate group, a sulphate group, carboxyl group, or a monosaccharide having a phosphate group, sulphate group or earboxyl group,

wherein only one of the residues X is present,

wherein n is 1 to 50, and

wherein the sialyzed carbohydrate are in a form so that sia  $\alpha$  2-3 residues of said sialyzed carbohydrates bind to pathogens.

- 43. (Currently Amended) The composition according to claim [[41]] <u>42</u>, further comprising an auxiliary agent, diluent, moisturizing agent, thickening agent, flavoring agent, sweetening agent, or carrier.
- 44. (Currently Amended) A food or dietetic <u>The</u> composition comprising a siatyzed carbohydrate according to claim 42, wherein the siatyzed carbohydrate comprises a first-carbohydrate carbohydrates of formula I are selected from the group consisting of disialyl-lacto-N-tetraose (DS-LNT), disialyl-lacto-N-neotetraose (DS-LNnT), glycomacropeptide (GMP), ganglioside Gp1a, ganglioside Gp1a and ganglioside Gp1



wherein X is NeuAc or NeuGe; wherein only one of the residues X is present, wherein n is 1 to 50, and

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wherein the sialyzed carbohydrate are in a form so that siae2-3 residues present in the sialzyed carbohydrate bind to bacterial adhesins upon administration of the composition to a human or animal patient.

- 45. (Currently Amended) The composition according to claim [[44]] 42, wherein a sialic acid or an O-acetyl sialic acid derivative is bound to the NeuAc or NeuGc.
- 46. (Currently Amended The composition according to claim [[44]] <u>42</u>, wherein a phosphate group, sulphate group or carboxyl group is bound to the NeuAc or NeuGc.

## 47-49. (Cancelled)

- 50. (Currently Amended) The composition according to claim [[44]] 42, wherein the composition is in a form selected from the group consisting of a beverage, baby formula, food supplement, infant formula, milk product, chocolate, cheese, sausage, meat product, anabolic food, and probe tube food.
- 51. (Currently Amended) A method for treating a bacterial infection in a patient, comprising <u>orally</u> administering an effective amount of the composition according to claim [144]] 42 to said patient.

## 52. (Cancelled)

53. (Currently Amended) The method according to claim [[53]] 32, wherein the patient is a pregnant women, an infant, debilitated person, or an elderly person.